

=> FILE REG

FILE 'REGISTRY' ENTERED ON 23 JUL 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'HCAPLUS' ENTERED ON 23 JUL 2008

L1 1123 S BASSET ?/AU  
L2 205 S BRES ?/AU  
L3 115 S COPERET ?/AU  
L4 83614 S MARTIN MAUNDERS ?/AU OR MAUNDERS MARTIN ?/AU OR MARTIN  
L5 43 S SOULIVONG ?/AU  
L6 145 S TAOUFIK ?/AU  
L7 188 S THIVOLLE CAZAT ?/AU OR CAZAT THIVOLLE ?/AU OR THIVOLLE  
L8 1 S L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7  
SEL RN

FILE 'REGISTRY' ENTERED ON 23 JUL 2008

L9 5 S E1-E5  
SEL L9 5 RN  
L10 1 S E6  
SEL L9 4 RN  
L11 1 S E7  
SEL L9 1-2 RN  
L12 2 S E8-E9

FILE 'HCA' ENTERED ON 23 JUL 2008

L13 7305 S L11/P  
L14 27094 S L10 (L) RACT/RL  
L15 84 S L12  
L16 1356 S L13 AND L14  
L17 5 S L16 AND L15

FILE 'REGISTRY' ENTERED ON 23 JUL 2008

L18 47487 S (C (L) H (L) M)/ELS (L) 3/ELC.SUB  
L19 9460 S L18 AND NO RSD/FA  
L20 2115664 S H/ELS AND (A2 OR T1 OR T2 OR T3 OR B2)/PG  
L21 3036 S L19 AND L20

FILE 'HCA' ENTERED ON 23 JUL 2008

L22 16762 S L21

FILE 'REGISTRY' ENTERED ON 23 JUL 2008

L23 2811 S L20 (L) 2/ELC.SUB  
L24 4827 S (M (L) H)/ELS (L) 2/ELC.SUB

FILE 'HCA' ENTERED ON 23 JUL 2008

L25 12806 S L23  
L26 28595 S L24  
L27 6 S L16 AND L22  
L28 1 S L16 AND L25  
L29 1 S L16 AND L26  
L30 138366 S L18  
L31 9 S L16 AND L30  
L32 9 S L17 OR L27 OR L28 OR L29 OR L31  
L33 6 S 1840-2003/PY,PRY,AY AND L32

=> FILE HCA

FILE 'HCA' ENTERED ON 23 JUL 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

=> D L33 1-6 BIB ABS HITSTR HITIND

L33 ANSWER 1 OF 6 HCA COPYRIGHT 2008 ACS on STN

AN 141:297659 HCA Full-text

TI Metal compound fixed on a support, preparation process, and use of  
the compound in hydrocarbon metathesis reactions

IN Basset, Jean Marie; Coperet, Christophe; Soulivong, Daravong;  
Taoufik, Mostafa; Thivolle, Cazat Jean

PA BP Lavera SNC, Fr.

SO Fr. Demande, 35 pp.

CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	FR 2852866	A1	20041001	FR 2003-3588	200303 25
	FR 2852866	B1	20060714		

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WO 2004089541

A2

20041021

WO 2004-FR730

200403  
24

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WO 2004089541

A3

20041118

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,  
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,  
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,  
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,  
VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,  
DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT,  
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG

EP 1603852

A2

20051214

EP 2004-742338

200403  
24

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,  
PL, SK

CN 1795153

A

20060628

CN 2004-80014514

200403  
24

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US 20070129584

A1

20070607

US 2007-550628

200701  
22

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PRAI FR 2003-3588

A

20030325

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WO 2004-FR730

W

20040324

AB The present invention relates to a supported metal compd. comprising a support based on aluminum oxide on which is grafted a tungsten hydride. The support can be selected among the homogeneous supports in compn. based on aluminum oxide and among the heterogeneous supports based on aluminum oxide including aluminum oxide primarily on the surface of the aforesaid supports. The support can, in particular, be aluminum oxide, mixed aluminum oxides, and modified aluminum oxides, contg. one or more elements of Groups 15 to 17, such as phosphorus, sulfur, the fluorine or chlorine, of the Table of the Periodic Classification of the Elements. Preferably the support is porous, nonporous, or mesoporous alumina. The valence of tungsten can have a value going from 2 to 6; the tungsten atom is generally related to one or more hydrogen atoms and, optionally, one or more

hydrocarbon radicals. The compd. according to the invention can be prepd. by a stage of dispersion and grafting of an organometallic tungsten precursor on the support based on aluminum oxide, then by hydrogenolysis of the resulting product. The compd. according to the invention can be used as catalyst in reactions of scission and hydrocarbon recombination, in particular in reactions of hydrocarbon metathesis, in particular of alkane. It has a catalytic activity extremely high in this type of reaction, and, in particular, an increased selectivity in the formation of n-alkanes compared to that of isoalkanes. A typical catalyst was manufd. by hydrogenation of tris(neopentyl)neopentylidynetungstenon  $\alpha$ -alumina support.

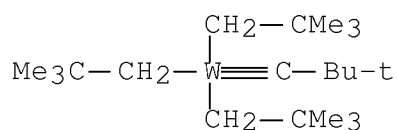
IT 68490-69-7DP, hydrogenated

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(tungsten hydride fixed on alumina-based supports for hydrocarbon metathesis reactions)

RN 68490-69-7 HCA

CN Tungsten, tris(2,2-dimethylpropyl)(2,2-dimethylpropylidyne)-, (T-4)-  
(CA INDEX NAME)



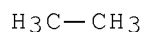
IT 74-84-0P, Ethane, preparation

RL: IMF (Industrial manufacture); PREP (Preparation)

(tungsten hydride fixed on alumina-based supports for hydrocarbon metathesis reactions)

RN 74-84-0 HCA

CN Ethane (CA INDEX NAME)



IT 74-82-8, Methane, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(tungsten hydride fixed on alumina-based supports for hydrocarbon metathesis reactions)

RN 74-82-8 HCA

CN Methane (CA INDEX NAME)

CH4

IC ICM B01J031-12  
ICS B01J032-00; B01J037-02; C07C006-02; C07C006-08; C07C002-66;  
C07C002-58; C07C002-30  
CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)  
Section cross-reference(s): 67  
IT 68490-69-7DP, hydrogenated  
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP  
(Preparation); USES (Uses)  
(tungsten hydride fixed on alumina-based supports for hydrocarbon  
metathesis reactions)  
IT 74-84-0P, Ethane, preparation 106-97-8P, Butane,  
preparation  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(tungsten hydride fixed on alumina-based supports for hydrocarbon  
metathesis reactions)  
IT 74-82-8, Methane, reactions 74-98-6, Propane, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(tungsten hydride fixed on alumina-based supports for hydrocarbon  
metathesis reactions)  
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 2 OF 6 HCA COPYRIGHT 2008 ACS on STN  
AN 140:17737 HCA Full-text  
TI Process for conversion of methane into ethane  
IN Basset, Jean Marie; Bres, Philippe; Coperet, Christophe; Maunders,  
Barry; Soulivong, Daravong; Taoufik, Mostafa; Thivolle Cazat, Jean  
PA BP Lavera, Fr.; BP Chemicals Limited  
SO Fr. Demande, 31 pp.  
CODEN: FRXXBL

DT Patent  
LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	FR 2840607	A1	20031212	FR 2002-7066	200206 10
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	CA 2488758	A1	20031218	CA 2003-2488758	200306

04

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WO 2003104171

A1

20031218

WO 2003-GB2426

200306

04

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 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI,  
 NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ,  
 TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

AU 2003232934

A1

20031222

AU 2003-232934

200306

04

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EP 1511703

A1

20050309

EP 2003-727733

200306

04

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,  
 SK

CN 1659120

A

20050824

CN 2003-813419

200306

04

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US 20050272966

A1

20051208

US 2004-517212

200412

08

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PRAI FR 2002-7066 A 20020610 &lt;--

WO 2003-GB2426 W 20030604 &lt;--

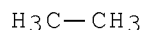
OS CASREACT 140:17737

AB In the title process methane is brought to contact with a metal catalyst (lanthanides, actinides and Groups 2 to 12 metals) to form ethane at a yield of  $\geq 65\%$  compared to the carbonaceous products formed in the process. The conversion of methane is carried out in particular by catalytic coupling, preferably not-oxidn. of methane. The catalyst can be advantageously selected among the metal hydrides and the organometallic compds. of metal preferably supported and in particular grafted on a solid support.

IT 74-84-0P, Ethane, preparation  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (process for manuf. of alkanes from one species to another  
 species using hydrogenolyzed metal catalysts)

RN 74-84-0 HCA

CN Ethane (CA INDEX NAME)



IT 74-82-8, Methane, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (process for manuf. of alkanes from one species to another  
 species using hydrogenolyzed metal catalysts)

RN 74-82-8 HCA

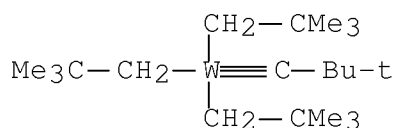
CN Methane (CA INDEX NAME)



IT 68490-69-7P  
 RL: BYP (Byproduct); PREP (Preparation)  
 (supported catalyst; process for manuf. of alkanes from one  
 species to another species using hydrogenolyzed metal catalysts)

RN 68490-69-7 HCA

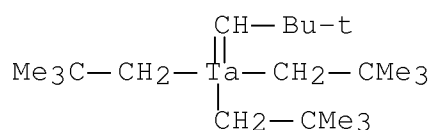
CN Tungsten, tris(2,2-dimethylpropyl)(2,2-dimethylpropylidyne)-, (T-4)-  
 (CA INDEX NAME)



IT 54294-45-0, Tri(neopentyl)(neopentylidene)tantalum  
 RL: CAT (Catalyst use); USES (Uses)  
 (supported catalyst; process for manuf. of alkanes from one  
 species to another species using hydrogenolyzed metal catalysts)

RN 54294-45-0 HCA

CN Tantalum, tris(2,2-dimethylpropyl)(2,2-dimethylpropylidene)-, (T-4)-  
 (CA INDEX NAME)



IC ICM C07C009-06  
ICS C07C002-76

CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)  
Section cross-reference(s): 23, 67, 29, 78

IT 74-84-0P, Ethane, preparation  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(process for manuf. of alkanes from one species to another  
species using hydrogenolyzed metal catalysts)

IT 74-82-8, Methane, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(process for manuf. of alkanes from one species to another  
species using hydrogenolyzed metal catalysts)

IT 68490-69-7P  
RL: BYP (Byproduct); PREP (Preparation)  
(supported catalyst; process for manuf. of alkanes from one  
species to another species using hydrogenolyzed metal catalysts)

IT 54294-45-0, Tri(neopentyl)(neopentylidene)tantalum  
RL: CAT (Catalyst use); USES (Uses)  
(supported catalyst; process for manuf. of alkanes from one  
species to another species using hydrogenolyzed metal catalysts)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 3 OF 6 HCA COPYRIGHT 2008 ACS on STN

AN 140:17736 HCA Full-text

TI Process for manufacture of alkanes from one species to another  
species

IN Coperet, Christophe; Soulivong, Daravong; Maunders, Barry; Sunley,  
Glenn; Dobson, Lan

PA BP Lavera, Fr.; BP Chemicals Limited

SO Fr. Demande, 65 pp.  
CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI FR 2840606 A1 20031212 FR 2002-7067 200206  
10

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WO 2003104172 A1 20031218 WO 2003-GB2427 200306  
04

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI,  
NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ,  
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,  
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG  
AU 2003232358 A1 20031222 AU 2003-232358 200306  
04

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PRAI FR 2002-7067 A 20020610 <--  
WO 2003-GB2427 W 20030604 <--

OS CASREACT 140:17736

AB In the process such as metathesis or transformation, an initial  
alkane is set to contact with a metal catalyst (e.g., supported  
tris(neopentyl)(neopentylidene)tantalum) which has been activated  
(hydrogenolyzed) by the contact with a agent which can form in-situ H  
or/and a hydrocarbonyl radical. The initial alkanes can be selected  
among linear alkanes, branched alkanes and cycloalkanes substituted  
by at least a linear or branched chain alkane, and among the methane  
and of the mixts. of methane with one or more other initial alkanes.

IT 74-82-8, Methane, reactions

RL: CAT (Catalyst use); RCT (Reactant); RACT (Reactant or  
reagent); USES (Uses)

(in-situ hydrogen former; process for manuf. of alkanes from one  
species to another species using hydrogenolyzed metal catalysts)

RN 74-82-8 HCA

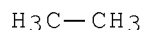
CN Methane (CA INDEX NAME)

CH<sub>4</sub>

IT 74-84-0P, Ethane, preparation  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (process for manuf. of alkanes from one species to another  
 species using hydrogenolyzed metal catalysts)

RN 74-84-0 HCA

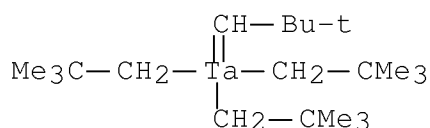
CN Ethane (CA INDEX NAME)



IT 54294-45-0, Tri(neopentyl)(neopentylidene)tantalum  
 68490-69-7  
 RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical,  
 engineering or chemical process); PROC (Process); USES (Uses)  
 (supported catalyst; process for manuf. of alkanes from one  
 species to another species using hydrogenolyzed metal catalysts)

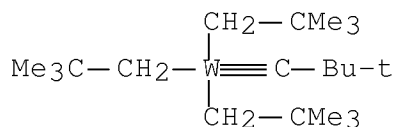
RN 54294-45-0 HCA

CN Tantalum, tris(2,2-dimethylpropyl)(2,2-dimethylpropylidene)-, (T-4)-  
 (CA INDEX NAME)



RN 68490-69-7 HCA

CN Tungsten, tris(2,2-dimethylpropyl)(2,2-dimethylpropylidyne)-, (T-4)-  
 (CA INDEX NAME)



IC ICM C07C009-00

ICS C07C006-10; C07C004-06

CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)  
 Section cross-reference(s): 23, 29, 67, 78

IT 74-82-8, Methane, reactions

RL: CAT (Catalyst use); RCT (Reactant); RACT (Reactant or

reagent); USES (Uses)

(in-situ hydrogen former; process for manuf. of alkanes from one species to another species using hydrogenolyzed metal catalysts)

IT 74-84-0P, Ethane, preparation 106-97-8P, Butane, preparation

RL: IMF (Industrial manufacture); PREP (Preparation)

(process for manuf. of alkanes from one species to another species using hydrogenolyzed metal catalysts)

IT 54294-45-0, Tri(neopentyl)(neopentylidene)tantalum 68490-69-7

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(supported catalyst; process for manuf. of alkanes from one species to another species using hydrogenolyzed metal catalysts)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 4 OF 6 HCA COPYRIGHT 2008 ACS on STN

AN 140:17735 HCA Full-text

TI Process for manufacture of alkanes from one species to another species

IN Lefort, Laurent; Maunders, Barry; Sunley, Glenn

PA BP Lavera, Fr.; BP Chemicals Limited

SO Fr. Demande, 75 pp.

CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	FR 2840605	A1	20031212	FR 2002-7065	20020610
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	WO 2003104173	A1	20031218	WO 2003-GB2439	20030604

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,

EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,  
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG

AU 2003240074 A1 20031222 AU 2003-240074

200306

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PRAI FR 2002-7065 A 20020610 <--

WO 2003-GB2439 W 20030604 <--

AB In the process such as metathesis or transformation, an initial alkane is set to contact with a metal catalyst (e.g., supported tris(neopentyl)(neopentylidene)tantalum) which has been activated (hydrogenolyzed) by the contact with H or/and a hydrocarbyl radical where the H can be generated in situ. The initial alkanes can be selected among linear alkanes, branched alkanes and cycloalkanes substituted by at least a linear or branched chain alkane, and among the methane and of the mixts. of methane with one or more other initial alkanes.

IT 74-82-8, Methane, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(methanolysis agent; process for manuf. of alkanes from one species to another species using hydrogenolyzed metal catalysts)

RN 74-82-8 HCA

CN Methane (CA INDEX NAME)

CH<sub>4</sub>

IT 74-84-0P, Ethane, preparation

RL: IMF (Industrial manufacture); PREP (Preparation)  
(process for manuf. of alkanes from one species to another species using hydrogenolyzed metal catalysts)

RN 74-84-0 HCA

CN Ethane (CA INDEX NAME)

H<sub>3</sub>C—CH<sub>3</sub>

IT 54294-45-0, Tri(neopentyl)(neopentylidene)tantalum

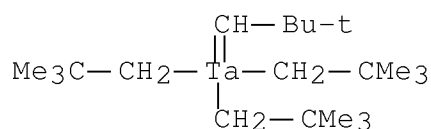
68490-69-7

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(supported catalyst; process for manuf. of alkanes from one

species to another species using hydrogenolyzed metal catalysts)

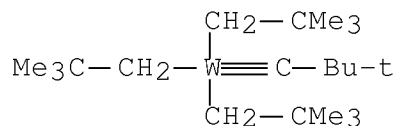
RN 54294-45-0 HCA

CN Tantalum, tris(2,2-dimethylpropyl)(2,2-dimethylpropylidene)-, (T-4)-  
(CA INDEX NAME)



RN 68490-69-7 HCA

CN Tungsten, tris(2,2-dimethylpropyl)(2,2-dimethylpropylidyne)-, (T-4)-  
(CA INDEX NAME)



IC ICM C07C006-10

ICS C07C002-76; C07C004-06; C07C009-00

CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

IT 74-82-8, Methane, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(methanolysis agent; process for manuf. of alkanes from one  
species to another species using hydrogenolyzed metal catalysts)

IT 74-84-0P, Ethane, preparation 106-97-8P, Butane,  
preparation

RL: IMF (Industrial manufacture); PREP (Preparation)

(process for manuf. of alkanes from one species to another  
species using hydrogenolyzed metal catalysts)

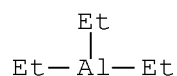
IT 54294-45-0, Tri(neopentyl)(neopentylidene)tantalum  
68490-69-7

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical,  
engineering or chemical process); PROC (Process); USES (Uses)

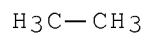
(supported catalyst; process for manuf. of alkanes from one  
species to another species using hydrogenolyzed metal catalysts)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AN 111:235529 HCA Full-text  
 OREF 111:39113a,39116a  
 TI Dehydrocoupling of methane by supported organometallic complexes  
 AU Wilson, Robert B., Jr.; Chan, Yee Wai; Posin, Barry M.  
 CS Inorg. Org. Chem., Program SRI Int., Menlo Park, CA, 94025, USA  
 SO Preprints of Papers - American Chemical Society, Division of Fuel  
 Chemistry (1989), 34(4), 1378-85  
 CODEN: ACFPAI; ISSN: 0569-3772  
 DT Journal  
 LA English  
 AB The effects of reaction conditions and Ru catalyst clustering,  
 precursors, and supports on the oxidative coupling of CH<sub>4</sub> to C<sub>2</sub> and  
 C<sub>6</sub>+ hydrocarbons were examd. Al<sub>2</sub>O<sub>3</sub>, MgO, and 5A and LZY 52 zeolites  
 were used as supports.  
 IT 97-93-8D, reaction products with ruthenium cluster compds.  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for oxidative coupling of methane, selectivity of)  
 RN 97-93-8 HCA  
 CN Aluminum, triethyl- (CA INDEX NAME)



IT 74-84-0P, Ethane, preparation  
 RL: FORM (Formation, nonpreparative); PREP (Preparation)  
 (formation of, in oxidative coupling of methane in presence of  
 ruthenium catalysts, selectivity of)  
 RN 74-84-0 HCA  
 CN Ethane (CA INDEX NAME)

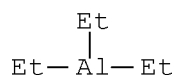


IT 74-82-8, Methane, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (oxidative coupling of, in presence of ruthenium catalysts,  
 selectivity of)  
 RN 74-82-8 HCA  
 CN Methane (CA INDEX NAME)



CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)  
 IT 97-93-8D, reaction products with ruthenium cluster compds.  
 7440-18-8, Ruthenium, uses and miscellaneous 12568-51-3D, reaction  
 products with triethylaluminum 33307-38-9 34438-91-0D, reaction  
 products with triethylaluminum  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for oxidative coupling of methane, selectivity of)  
 IT 74-84-0P, Ethane, preparation 74-85-1P, Ethene,  
 preparation  
 RL: FORM (Formation, nonpreparative); PREP (Preparation)  
 (formation of, in oxidative coupling of methane in presence of  
 ruthenium catalysts, selectivity of)  
 IT 74-82-8, Methane, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (oxidative coupling of, in presence of ruthenium catalysts,  
 selectivity of)

L33 ANSWER 6 OF 6 HCA COPYRIGHT 2008 ACS on STN  
 AN 110:97517 HCA Full-text  
 OREF 110:16097a,16100a  
 TI Conversion of methane to higher hydrocarbons by supported  
 organometallic complexes  
 AU Wilson, Robert B., Jr.; Chan, Yee Wai  
 CS Inorg. Organomet. Prog., SRI Int., Menlo Park, CA, 94025, USA  
 SO Preprints of Papers - American Chemical Society, Division of Fuel  
 Chemistry (1988), 33(3), 443-52  
 CODEN: ACFPAI; ISSN: 0569-3772  
 DT Journal  
 LA English  
 AB Ru-Et-CO complexes (contg. 1, 4, or 6 Ru atoms) on zeolites, Al<sub>2</sub>O<sub>3</sub>,  
 or MgO were used to convert CH<sub>4</sub> to hydrocarbons at 750°. A  
 selectivity of ≤50% for higher hydrocarbons was obsd. for Al<sub>2</sub>O<sub>3</sub>-  
 supported hexameric Ru complexes, while zeolite-supported Ru<sub>4</sub>  
 complexes produced less coke than the other catalysts apparently due  
 to the cluster being located inside the zeolite supercage.  
 IT 97-93-8D, reaction products with ruthenium cluster compds.  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, supported, for conversion of methane to hydrocarbons)  
 RN 97-93-8 HCA  
 CN Aluminum, triethyl- (CA INDEX NAME)



IT 74-82-8, Methane, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(conversion of, to hydrocarbons, supported ruthenium cluster  
catalysts for)  
RN 74-82-8 HCA  
CN Methane (CA INDEX NAME)

CH<sub>4</sub>

IT 74-84-0P, Ethane, preparation  
RL: FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, from methane, in presence of supported ruthenium  
cluster catalysts)  
RN 74-84-0 HCA  
CN Ethane (CA INDEX NAME)

H<sub>3</sub>C—CH<sub>3</sub>

CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)  
IT 97-93-8D, reaction products with ruthenium cluster compds.  
12568-51-3D, reaction products with triethylaluminum 33307-38-9  
34438-91-0D, reaction products with triethylaluminum  
RL: CAT (Catalyst use); USES (Uses)  
(catalysts, supported, for conversion of methane to hydrocarbons)  
IT 74-82-8, Methane, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(conversion of, to hydrocarbons, supported ruthenium cluster  
catalysts for)  
IT 74-84-0P, Ethane, preparation 74-85-1P, Ethene,  
preparation  
RL: FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, from methane, in presence of supported ruthenium  
cluster catalysts)